## *REMARKS*

Entry of this Amendment under 37 CFR § 116 is respectfully requested, because it places the application in condition for allowance or in better form for appeal. The amendments to the claims presented herein are needed to better define the metes and bounds of the invention vis-à-vis the prior art applied by the Examiner; these amendments could not have been presented earlier, because this is the Applicant's first opportunity to respond to the new ground of rejection stated in the last Office Action. In Applicant's last response, filed on August 25, 2003, there were no amendments to the claims that could have necessitated the new ground of rejection.

**Status of the Claims**

Claims 1-27 remain pending in this patent application. Claims 1-15 are presented for examination, and claims 16-27 have been withdrawn.

**Allowable Subject Matter**

Applicant notes with appreciation the Examiner's recognition of allowable subject matter in claims 3, 11 12. For reasons presented below, Applicant respectfully submits that claims 1, 2, 4-10 and 13-15, as now presented, are also allowable.

**Rejection of the Claims**

Claims 1, 2, 4-10 and 13-15 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. patent No. 5,955,744 (Gu et al.) in view of U.S. patent No. 6,040,814 (Murakami et al.). Applicant respectfully traverses this rejection insofar as it might be deemed applicable to claims 1, 2, 4-10 and 13-15 with amendments proposed in this paper.

Independent claims 1 and 15 recite a liquid crystal display comprising a combination of elements which includes crossing gate and data lines and a pixel electrode having a portion overlapping the data line and a storage electrode overlapping the gate line. Without acquiescing in the rejection, Applicant has amended claim 1 to recite (1) the pixel electrode as being laterally spaced a first distance from the gate electrode and (2) the storage electrode extended from the pixel electrode. Claim 15 additionally recites a portion of the storage electrode as being laterally spaced from the data line. Without acquiescing in the rejection, Applicant has also amended claim 15 to recite (1) the pixel as being spaced a predetermined distance from the gate electrode and (2) the storage electrode as being extended and connected to the pixel electrode. Applicant has also made purely editorial changes to claims 1 and 15 for improving their clarity and readability.

Referring to the LCD shown in Fig. 3 of Gu et al., the entire extent of the edges of pixels 3 overlap crossing address lines 5 and 7 at overlap areas 18. Gu et al. cannot, then, satisfy the requirement of claim 1 and 15 that a *portion* of the pixel electrode overlaps the data line. Applicant is unable to find in the Gu et al. disclosure any mention of a gate electrode 4 integrally formed with gate line 7, as asserted by the Examiner. Gu et al. cannot, then, satisfy the requirements of claims 1 and 15, as now amended, that the pixel electrode is spaced from the gate electrode. As shown in Fig. 6 of Gu et al. and described in column 8, lines 27-29, pixel electrodes 3 contact storage capacitor electrodes 12 via pixel electrode extension areas 38. Gu et al. cannot, then, satisfy the requirements of claims 1 and 15, as now amended, that the storage electrode is extended from the pixel electrode.

Figs. 7A and 7B of Murakami et al. show a cell of a prior art large-aperture LCD. As described in column 7, line 62 through column 8, line 8, and column 15, lines 51-67, cell electrode overlaps the data line 12, whereby the

aperture ratio of the cell is increased. As disclosed in these cited passages, while the aperture ratio is improved, the arrangement of the cell elements produces large parasitic capacitance and increased cross-talk. (See column 8, lines 4-7 and column 15, lines 54-56 and 65-68.)

To remedy the deficiencies of Gu et al. vis-à-vis the requirements of Applicant's claims, the Examiner proposes modifying the Gu et al. LCD to incorporate teachings borrowed from Murakami et al. In particular, the Examiner proposes a modification of the Gu et al. LCD "with a first portion of the pixel electrode being laterally spaced a first distance from the gate line."

First, Applicant observes that as amended, claims 1 and 15 call for the pixel electrode to be spaced from the gate *electrode*. As noted above, there is no disclosure of a gate electrode in Gu et al., much less a pixel electrode that is spaced from a gate electrode.

According to the Examiner, the proposed modification of the Gu et al. LCD using the disclosure in Muraksmi et al. is justified, because it will prevent "cross-talk with capacitance between each cell and adjacent data lines."

Applicant submits that one of ordinary skill in the art would not find obvious the modification of the Gu et al. LCD proposed by the Examiner. In fact, there is no suggestion in either Gu et al. or Murakami et al. for making the modification proposed by the Examiner. As observed above, the LCD cell disclosed in Figs. 7A and 7B exhibits the unfavorable attribute of *increased* cross-talk. Accordingly the motivation, i.e., reduced cross-talk, that the Examiner ascribes for the proposed combination of the Gu et al. and Murakami et al. teachings cannot be valid.

Moreover, the proposed modification is illogical and contradicts the explicit teachings of Gu et al.: The extent of the overlap areas 18 is a key inventive aspect of the Gu et al. LCD, and the reduction of these areas resulting from the proposed modification would reduce the disclosed benefits of

the overlap areas. Absent the teachings provided by Applicant in this patent application, it is unlikely that one of ordinary skill in the art would disregard the explicit teachings of Gu et al. by reducing the extent of the overlap areas 18, as the Examiner has proposed.

The allowability of independent claims 1 and 15 inheres, of course, in the dependent claims. The dependent claims are also allowable by virtue of limitations they recite that are patentable over the prior art applied by the Examiner. Claim 4, for example, specifies that "the first portion of the pixel electrode and the portion of the storage electrode are located in at least one corner of the pixel electrode." Claims 5 and 7 specify that "a second portion of the pixel electrode overlaps a data line adjacent to the data line overlapped by the first portion of the pixel electrode." Claims 8 and 9 specify that "the storage electrode is integral to the pixel electrode and is formed of a material identical to the pixel electrode." Claim 10 requires "a gate overlapping part overlapping a gate line on a side of the pixel electrode opposite from the storage electrode." These recited features of the liquid crystal display device cannot be found in of the Gu et al. and Murakami et al. patents, by themselves or in any reasonable combination.

The liquid crystal display device disclosed and claimed in this application facilitates the repair of the display device. The benefits of the disclosed and claimed display device are not suggested and cannot be realized by the prior art applied by the Examiner, either singly or in combination.

For reasons presented in the foregoing discussion, Applicant submits that the Gu et al. and Murakami et al. disclosures cannot properly serve as a basis for rejecting independent claims 1 and 15 or dependent claims 2, 4-10, 13 and 14 under 35 USC § 103.

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In view of the amendments and remarks presented herein, Applicant respectfully requests that the Examiner withdraw the rejection stated in the last Office Action and recognize claims 1-15, all of the claims pending in this application, as allowable.

The Examiner is invited to contact Frederick R. Handren, Reg. No. 32,874, at (703) 205-8066 in the Washington, DC area if a discussion with Applicant's representative would facilitate the resolution of any issues remaining in this application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge any payment or credit any overpayment to Deposit Account No. 02-2448. This authorization applies to any additional fees required under 37 CFR §1.16 and 37 CFR §1.17 and in particular to fees for an extension of time.

Respectfully submitted,
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